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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,099	11/22/2002	Fernando J Marcos Alba		9167

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EXAMINER

MILORD, MARCEAU

ART UNIT	PAPER NUMBER
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2682

DATE MAILED: 05/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/857,099	<b>Applicant(s)</b> MARCOS ALBA, FERNANDO J	
	<b>Examiner</b> Marceau Milord	<b>Art Unit</b> 2682	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 November 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 November 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1- 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishimoto et al (US Patent No 5537674) in view of Takegawa et al (US Patent No 5023938) and Tomohiro et al (EP 0479613 A2).

Regarding claims 1-3, Kishimoto et al discloses a Radio phonic audience loyalty-generating and pick-up device consisting in a radio receiver (fig. 1) intended for reception into commercial broadcasting frequency bands comprising a PLL frequency synthesizer for the local oscillator (col. 2, lines 36-53; col. 4, lines 28-44). The said receiver (fig. 1) further comprises a frequency divider that can only be programmed to certain predetermined counting values among

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the whole values contained in each given band (col. 2, lines 35-57; col. 3, lines 10-37; col. 4, line 46-col. 5, line 33).

However, Kishimoto et al does not specifically disclose the features of a receiver that can only be tuned to the frequencies corresponding to the predetermined counting values; and a register matrix and a tuning controller, the register matrix stores the counting values that are not allowed to the frequency divider of the said PLL loop, each one corresponding to an excluded frequency; also a kind of indication referring to the related band to which each excluded frequency belongs to is stored for each counting value, if not all the excluded frequencies belong to the same band. When a frequency is demanded from the tuning controls, the said tuning controller firstly compares that required frequency in its related band - with those frequencies corresponding to counting values stored in the said register matrix, so that only non-excluded frequencies are allowed for tuning.

On the other hand, Takegawa et al, from the same field of endeavor, discloses a tuner having a programmable frequency divider, which selects a broadcast station based on a frequency division number, and a broadcast station-selecting device. The selecting device includes an input device for inputting information representing a broadcast station; a memory means for storing information representing a plurality of broadcast stations and for storing frequency division numbers respectively corresponding to the stored information; and a control circuit for reading from the memory the stored frequency division number corresponding to the inputted information by the input device, and for supplying the read frequency division number to the programmable frequency divider so that the programmable frequency divider will select a

broadcast station in accordance with the supplied frequency division number (col. 1, line 65-col. 2, line 25; col. 2, lines 26-47; col. 3, lines 1-38; col. 4, lines 10-28; col. 6, lines 11-31).

Tomohiro et al also discloses an automatic broadcast wave tuning device for a RDS receiver comprises a controller to enforce the RDS receiver to receive the former broadcast wave by setting a forbidden flag under such conditions as being unable to receive a program identification code but a receiving signal level of the broadcast wave within the same broadcasting network is above a predetermined signal level, or in case of being able to receive the program identification code but failing to meet up with that of the broadcasting station presently in contact. Hence, from the next automatic receiving frequency tuning, provided is a control for setting a frequency divisional ratio of the phase-locked loop circuit in order to select the best broadcast station of the all by discriminating reception signal levels of the broadcast waves transmitted by all the broadcasting stations bearing no forbidden flag (page 2, line 45-page 3, line 11; page 4, lines 25-47; page 5, lines 2-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Tomohiro to the modified system of Takegawa and Kishimoto in order to select the best broadcast station by discriminating receiving signals levels of the broadcast waves transmitted by all the broadcasting stations bearing no forbidden flag.

Claim 4 contains similar limitations addressed in claims 1-3, and therefore is rejected under a similar rationale.

Regarding claim 5, Kishimoto et al as modified discloses a Radio phonic audience loyalty-generating and pick-up device consisting in a radio receiver (fig. 1) comprising an analog to digital converter, a signal processor for extracting information coded accordingly to

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IBOC/IBAC digital radio broadcasting systems, a digital to analog converter, an audio decoder and a switch for selecting between analog program and digital program (col. 4, lines 28-61; col. 5, lines 11-55).

Regarding claims 6-8, Kishimoto et al discloses a Radio phonic audience loyalty-generating and pick-up device consisting in a radio receiver (fig. 1) intended for reception into commercial broadcasting frequency bands comprising a set of inductive or capacitive impedances for adjusting the bandpass for the radio frequency signal (col. 2, lines 36-53; col. 4, lines 28-44), another set of inductive or capacitive impedances for adjusting the local oscillator frequency, a selector controlled by the radio listener and a fine tuning circuit (col. 2, lines 35-57; col. 3, lines 10-37; col. 4, line 46-col. 5, line 33).

However, Kishimoto et al does not specifically disclose that the position of the selector corresponds to the tuning of a predetermined frequency, so that the receiver can only be tuned to one of these predetermined frequencies; and the radio frequency amplifier bandpass is adjusted for receiving a single predetermined frequency.

On the other hand, Takegawa et al, from the same field of endeavor, discloses a tuner having a programmable frequency divider, which selects a broadcast station based on a frequency division number, and a broadcast station-selecting device. The selecting device includes an input device for inputting information representing a broadcast station; a memory means for storing information representing a plurality of broadcast stations and for storing frequency division numbers respectively corresponding to the stored information; and a control circuit for reading from the memory the stored frequency division number corresponding to the inputted information by the input device, and for supplying the read frequency division number

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to the programmable frequency divider so that the programmable frequency divider will select a broadcast station in accordance with the supplied frequency division number (col. 1, line 65-col. 2, line 25; col. 2, lines 26-47; col. 3, lines 1-38; col. 4, lines 10-28; col. 6, lines 11-31).

Tomohiro et al also discloses an automatic broadcast wave tuning device for a RDS receiver comprises a controller to enforce the RDS receiver to receive the former broadcast wave by setting a forbidden flag under such conditions as being unable to receive a program identification code but a receiving signal level of the broadcast wave within the same broadcasting network is above a predetermined signal level, or in case of being able to receive the program identification code but failing to meet up with that of the broadcasting station presently in contact. Hence, from the next automatic receiving frequency tuning, provided is a control for setting a frequency divisional ratio of the phase-locked loop circuit in order to select the best broadcast station of the all by discriminating reception signal levels of the broadcast waves transmitted by all the broadcasting stations bearing no forbidden flag (page 2, line 45-page 3, line 11; page 4, lines 25-47; page 5, lines 2-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Tomohiro to the modified system of Takegawa and Kishimoto in order to select the best broadcast station by discriminating receiving signals levels of the broadcast waves transmitted by all the broadcasting stations bearing no forbidden flag.

Regarding claim 9, Kishimoto et al as modified discloses a Radio phonic audience loyalty-generating and pick-up device consisting in a radio receiver (fig. 1) comprising an analog to digital converter, a signal processor for extracting information coded accordingly to IBCQCFBAC digital radio broadcasting systems, an audio decoder, a digital to analog converter

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and a switch for selecting between analog program and digital program (col. 4, lines 28-61; col. 5, lines 11-55).

Regarding claims 10-12, Kishimoto et al discloses a Radio phonic audience loyalty-generating and pick-up device consisting in a radio receiver intended for reception into commercial broadcasting frequency bands comprising a PLL frequency synthesizer for the local oscillator (col. 2, lines 36-53; col. 4, lines 28-44). The said receiver further comprises a circuit for decoding tuning useful information, some permanent registers for storing codes identifying radio stations/chains, a sweep generator for the tuning frequency and a selector device controlled by the radio listener for determining the active register among the said registers (col. 2, lines 35-57; col. 3, lines 10-37; col. 4, line 46-col. 5, line 33).

However, Kishimoto et al does not specifically disclose the features of a scan that is stopped when the decoder finds a radio station transmitting the same code stored into the active register; and the receiver can only be tuned to one of these predetermined radio stations/chains.

On the other hand, Takegawa et al, from the same field of endeavor, discloses a tuner having a programmable frequency divider, which selects a broadcast station based on a frequency division number, and a broadcast station-selecting device. The selecting device includes an input device for inputting information representing a broadcast station; a memory means for storing information representing a plurality of broadcast stations and for storing frequency division numbers respectively corresponding to the stored information; and a control circuit for reading from the memory the stored frequency division number corresponding to the inputted information by the input device, and for supplying the read frequency division number to the programmable frequency divider so that the programmable frequency divider will select a



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broadcast station in accordance with the supplied frequency division number (col. 1, line 65-col. 2, line 25; col. 2, lines 26-47; col. 3, lines 1-38; col. 4, lines 10-28; col. 6, lines 11-31).

Tomohiro et al also discloses an automatic broadcast wave tuning device for a RDS receiver comprises a controller to enforce the RDS receiver to receive the former broadcast wave by setting a forbidden flag under such conditions as being unable to receive a program identification code but a receiving signal level of the broadcast wave within the same broadcasting network is above a predetermined signal level, or in case of being able to receive the program identification code but failing to meet up with that of the broadcasting station presently in contact. Hence, from the next automatic receiving frequency tuning, provided is a control for setting a frequency divisional ratio of the phase-locked loop circuit in order to select the best broadcast station of the all by discriminating reception signal levels of the broadcast waves transmitted by all the broadcasting stations bearing no forbidden flag (page 2, line 45-page 3, line 11; page 4, lines 25-47; page 5, lines 2-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Tomohiro to the modified system of Takegawa and Kishimoto in order to select the best broadcast station by discriminating receiving signals levels of the broadcast waves transmitted by all the broadcasting stations bearing no forbidden flag.

Regarding claims 13-14, Kishimoto et al discloses a Radio phonic audience loyalty-generating and pick-up device made upon a digital radio broadcasting receiver according to Eureka-147 digital radio broadcasting standard (col. 2, lines 36-53; col. 4, lines 28-44) further comprising several permanent registers for storing the codes which identify some radio stations/chains and a selector device controlled by the radio listener for determining the active

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register among the said registers (col. 2, lines 35-57; col. 3, lines 10-37; col. 4, line 46-col. 5, line 33).

However, Kishimoto et al does not specifically disclose the features of a means that detects the predetermined radio stations/chains, stopping the sweep at a radio station/chain owning a code that is contained into a register that has been activated by a selector, so that the receiver can only be tuned to one of these predetermined radio stations/chains.

On the other hand, Takegawa et al, from the same field of endeavor, discloses a tuner having a programmable frequency divider, which selects a broadcast station based on a frequency division number, and a broadcast station-selecting device. The selecting device includes an input device for inputting information representing a broadcast station; a memory means for storing information representing a plurality of broadcast stations and for storing frequency division numbers respectively corresponding to the stored information; and a control circuit for reading from the memory the stored frequency division number corresponding to the inputted information by the input device, and for supplying the read frequency division number to the programmable frequency divider so that the programmable frequency divider will select a broadcast station in accordance with the supplied frequency division number (col. 1, line 65-col. 2, line 25; col. 2, lines 26-47; col. 3, lines 1-38; col. 4, lines 10-28; col. 6, lines 11-31).

Tomohiro et al also discloses an automatic broadcast wave tuning device for a RDS receiver comprises a controller to enforce the RDS receiver to receive the former broadcast wave by setting a forbidden flag under such conditions as being unable to receive a program identification code but a receiving signal level of the broadcast wave within the same broadcasting network is above a predetermined signal level, or in case of being able to receive

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the program identification code but failing to meet up with that of the broadcasting station presently in contact. Hence, from the next automatic receiving frequency tuning, provided is a control for setting a frequency divisional ratio of the phase-locked loop circuit in order to select the best broadcast station of the all by discriminating reception signal levels of the broadcast waves transmitted by all the broadcasting stations bearing no forbidden flag (page 2, line 45- page 3, line 11; page 4, lines 25-47; page 5, lines 2-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Tomohiro to the modified system of Takegawa and Kishimoto in order to select the best broadcast station by discriminating receiving signals levels of the broadcast waves transmitted by all the broadcasting stations bearing no forbidden flag.

#### Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Suzuki discloses a multi-broadcast receiver for pseudo bi-directional communication between a broadcasting station and an audience via ordinary radio wave mass media such as television and radio.

Dougherty et al discloses a co-channel transmission of programs signals and ancillary signals.

Jankowitz discloses a system for broadcasting audio music and broadcasting lyrics for display and highlighting simultaneously with occurrence of the lyrics in the accompanying audio music.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marceau Milord whose telephone number is 571-272-7853. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MARCEAU MILORD

Marceau Milord

Primary Examiner

Art Unit 2682

  
MARCEAU MILORD  
PRIMARY EXAMINER

4-16-05